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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/530,167	04/24/2000	CLAUS GODER	GK-GEY-1065	2203
26418	7590	02/11/2004	EXAMINER FARAH, AHMED M	
REED SMITH, LLP ATTN: PATENT RECORDS DEPARTMENT 599 LEXINGTON AVENUE, 29TH FLOOR NEW YORK, NY 10022-7650			ART UNIT 3739	

DATE MAILED: 02/11/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.
09/530,167

Applicant(s)
Goder et al.

Examiner
Ahmed M. Farah

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE three MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on Nov 19, 2003
- 2a) ☒ This action is FINAL. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 22-45 is/are pending in the application.
- 4a) Of the above, claim(s) 39-42 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 22-30, 35-38, 43, and 44 is/are rejected.
- 7) ☒ Claim(s) 31-34 and 45 is/are objected to.
- 8) ☐ Claims _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some* c) ☒ None of:

1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

*See the attached detailed Office action for a list of the certified copies not received.

- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☒ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s). _____ | 6) <input type="checkbox"/> Other: _____ |

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DETAILED ACTION

Election/Restriction

1. This application contains claims 39-42 drawn to an invention nonelected with traverse in Paper No. 5. A complete reply to the final rejection must include cancelation of nonelected claims or other appropriate action (37 CFR 1.144) See MPEP § 821.01.

Double Patenting

2. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422

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F.2d 438, 164 USPQ 619 (CCPA 1970);and, *In re Thorington*,
418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with
37 CFR 1.321[©] may be used to overcome an actual or
provisional rejection based on a nonstatutory double
patenting ground provided the conflicting application or
patent is shown to be commonly owned with this application.
See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or
agent of record may sign a terminal disclaimer. A terminal
disclaimer signed by the assignee must fully comply with 37
CFR 3.73(b).

3. Claims 22-25 are rejected under the judicially created
doctrine of obviousness-type double patenting as being
unpatentable over claims 1-4 of U.S. Patent No. 6,537,270

B1. Although the conflicting claims are not identical, they
are not patentably distinct from each other because they are
directed to analogous devices for shaping the surface of an
object with a laser beam, the devices comprising pulsed
laser sources; a beam deflector; and micro-optically active

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structures that shape the intensity distribution of the laser beams after passing through.

Claim Objections

4. Claim 38 is objected to because of the following informalities: the term "pot-shaped intensity" in line 2 is believed to be a typographical error. For the purpose of examination, this term is treated as --spot-shaped intensity--. Appropriate correction is required.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 22-28, 30, 35, 38, 43, and 44 are rejected under 35 U.S.C. 102(b) as being anticipated by James et al. U.S. Patent No. 5,463,200.

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As to claims 22, 35, and 43, James et al (James, hereafter) disclose a system and methods of use for micro-machining a workpiece by optical energy, the system comprising:

an Nd:YAG pulsed laser source 10 for providing pulsed laser beams 12;

a deflecting device 26A through which the laser beam is guided over the surface of the object (see Fig. 14 and column 7 line 1 to column 8, line 4); and

an optical device 14 provided for changing the distribution of the radiation intensity inside the laser beam cross-section (see Fig. 1), the optical device having at least one optical element with micro-optically active structure 16 (microlense), said micro-optically active structure having a diffractively active element structured in the micrometer range whose dimensions approximately correspond to the wavelength of the pulsed laser beams as presently claimed (see column 4, lines 35-40; column 5, lines 42-62; and equations 1 and 2).

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As to claims 23 and 28, James discloses the use of various microlenses (micro-optically active structures). Hence, the optical elements can be introduced into or removed from the laser beam path as presently claimed (see column 4, lines 50-55; and Figs. 2 and 18). James further discloses at least one optical element 22 with diffractive or refractive micro-optically active structure, which is suitable for influencing the intensity distribution in the laser radiation cross-section (see Figs. 1 and 11; and column 4, line 56 to column 5, line 7).

As to claims 24-27, 30, and 38, the micro-optical elements of James generate various beam intensity distributions, including Gaussian or bell-shaped intensity distributions (see column 5, lines 20-27; and column 8, lines 14--43). And, as to claim 44, he teaches that the material removal is carried out with micro-optically active structures having a vertical profile (see Fig. 18 column 5, lines 31-33).

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Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 29, 36, and 37 are rejected under 35 U.S.C. 103(a) as being unpatentable over James in view of Telfair et al. U.S. Patent No. 4,911,711.

Although James, described above, teaches the use of computer controlled optical element 26A, he fails to teach that said optical element is mounted on rotatable wheel as presently claimed. As to claims 36 and 37, he does not teach the method steps in which the surface is smoothed out.

However, Telfair et al. teach an alternative device for shaping objects by removing material ^{from} the surface of the object, the device comprising a laser source and an optical element mounted on a rotatable exchange wheel to scan the

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laser beams over the surface of the material being reshaped (see Fig. 2). Therefore, it would have been obvious to one skilled in the art at the time of the applicant's invention to modify James in view of Telfair et al. and use a rotatable wheel as an alternative scanning mechanism in order to scan the optical energy (laser beams) so as to remove material from the surface of the object being reshaped. It would have been further obvious to one skilled in the art to start the removal with a laser beam having small spot area so as to concentrate high energy/intensity onto the surface, and use larger beam with lesser intensity/energy to smooth out the reshaped surface.

Allowable Subject Matter

9. Claims 31-34 and 45 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

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Conclusion

10. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL.** See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to A.

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Farah whose telephone number is (703) 305-5787. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Linda Dvorak, can be reached on (703) 308-0994. The official fax number for the group is (703) 872-9302; the fax number for After Final is (703) 872-9303; and the Examiner's Desk-top fax is (703) 746-3368.

A. M. Farah

Patent Examiner (Art Unit 3739)

Patent Examiner

Februaty 6, 2004.



Linda C. M. Dvorak

Supervisory